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NEWS	2	JUL 02	LMEDLINE coverage updated
NEWS	3	JUL 02	SCISEARCH enhanced with complete author names
NEWS	4	JUL 02	CHEMCATS accession numbers revised
NEWS	5	JUL 02	CA/CAPLUS enhanced with utility model patents from China
NEWS	6	JUL 16	CAPLUS enhanced with French and German abstracts
NEWS	7	JUL 18	CA/CAPLUS patent coverage enhanced
NEWS	8	JUL 26	USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS	9	JUL 30	USGENE now available on STN
NEWS	10	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS	11	AUG 06	BEILSTEIN updated with new compounds
NEWS	12	AUG 06	FSTA enhanced with new thesaurus edition
NEWS	13	AUG 13	CA/CAPLUS enhanced with additional kind codes for granted patents
NEWS	14	AUG 20	CA/CAPLUS enhanced with CAS indexing in pre-1907 records
NEWS	15	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS	16	AUG 27	USPATOLD now available on STN
NEWS	17	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data
NEWS	18	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS	19	SEP 13	FORIS renamed to SOFIS
NEWS	20	SEP 13	INPADOCDB enhanced with monthly SDI frequency
NEWS	21	SEP 17	CA/CAPLUS enhanced with printed CA page images from 1967-1998
NEWS	22	SEP 17	CAPLUS coverage extended to include traditional medicine patents
NEWS	23	SEP 24	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS	24	OCT 02	CA/CAPLUS enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS EXPRESS	19	SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.	
NEWS HOURS	STN Operating Hours Plus Help Desk Availability		
NEWS LOGIN	Welcome Banner and News Items		
NEWS IPC8	For general information regarding STN implementation of IPC 8		

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* * * * * STN Columbus * * * * *

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=> FILE REG

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 07:40:02 ON 05 OCT 2007

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STRUCTURE FILE UPDATES: 4 OCT 2007 HIGHEST RN 949197-90-4

DICTIONARY FILE UPDATES: 4 OCT 2007 HIGHEST RN 949197-90-4

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TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\BOY-15.str

L1 STRUCTURE UPLOADED

=> D L1

L1 HAS NO ANSWERS

L1 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> S L1 FULL

FULL SEARCH INITIATED 07:40:43 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 80 TO ITERATE

100.0% PROCESSED 80 ITERATIONS

21 ANSWERS

SEARCH TIME: 00.00.01

L2 21 SEA SSS FUL L1

=> FILE CAPLUS

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

172.10

172.31

FILE 'CAPLUS' ENTERED AT 07:40:53 ON 05 OCT 2007
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FILE COVERS 1907 - 5 Oct 2007 VOL 147 ISS 16
FILE LAST UPDATED: 4 Oct 2007 (20071004/ED)

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=> S L2
L3 402 L2

=> S L3 AND ANTIOXIDANT
122734 ANTIOXIDANT
L4 3 L3 AND ANTIOXIDANT

=> S L4 AND ASCORBIC ACID
86730 ASCORBIC
4454891 ACID
85843 ASCORBIC ACID
(ASCORBIC(W)ACID)
L5 1 L4 AND ASCORBIC ACID

=> S L5 AND MICROWAVE
122326 MICROWAVE
L6 1 L5 AND MICROWAVE

=> D L6 IBIB ABS HITSTR 1

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:878367 CAPLUS
DOCUMENT NUMBER: 141:349924
TITLE: Method for producing 3,3'-diallyl-4,4'-
dihydroxydiphenyl sulfone
INVENTOR(S): Yanagida, Shozo; Enokida, Hirotaka; Fujimoto, Masaki;
Nakamura, Katsunori; Yamamoto, Tetsushi; Wada, Yuji
PATENT ASSIGNEE(S): Sanko Chemical Industry Co., Ltd., Japan
SOURCE: PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004089883	A1	20041021	WO 2004-JP4719	20040331
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,				

GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK,
 LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO,
 NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
 TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
 BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
 ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
 SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
 TD, TG

JP 2004345955 A 20041209 JP 2003-100352 20030403
 JP 2005075757 A 20050324 JP 2003-306348 20030829
 EP 1612205 A1 20060104 EP 2004-724844 20040331

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK

CN 1768032 A 20060503 CN 2004-80009129 20040331
 US 2006217574 A1 20060928 US 2005-551481 20050929

PRIORITY APPLN. INFO.:

JP 2003-100352 A 20030403
 JP 2003-306348 A 20030829
 WO 2004-JP4719 W 20040331

OTHER SOURCE(S): CASREACT 141:349924

AB Disclosed is a method for producing 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone (I), which comprises subjecting 4,4'-diallyloxydiphenyl sulfone (II) to Claisen rearrangement reaction under the irradiation with a microwave, preferably in a molten state, more preferably further in a substantially oxygen-free atmospheric and in the presence of at least one compound selected from the group consisting of an antioxidant, an organic base compound and a chelate compound. The method allows the production of the

objective compound having a high purity with good efficiency in a short time in good yield without using solvent. Thus, 10.00 g II and 0.01 g N,N-dimethylaniline were added to a quartz flask fitted with a temperature sensor and a magnetic stirrer, purged with N, and irradiated with microwave (2,450 MHz and 100 W) under a stream of N. After melting at 160°, the temperature was maintained at 280° for 5 min by turning on and off the irradiation. The reaction mixture was dissolved in 10 weight% aqueous NaOH solution, decolorized by stirring with a small quantity of activated charcoal, filtered, neutralized with HCl for precipitating crystals

to

give 80-90% I.

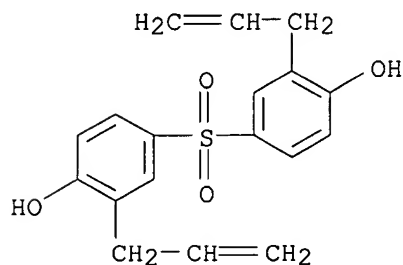
IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone by Claisen rearrangement of 4,4'-diallyloxydiphenyl sulfone under microwave irradiation in presence of antioxidant, organic base compound, or chelate compound)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



REFERENCE COUNT:

5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D L5 IBIB ABS HITSTR 1

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:878367 CAPLUS

DOCUMENT NUMBER: 141:349924

TITLE: Method for producing 3,3'-diallyl-4,4'-
dihydroxydiphenyl sulfone

INVENTOR(S): Yanagida, Shozo; Enokida, Hirotaka; Fujimoto, Masaki;
Nakamura, Katsunori; Yamamoto, Tetsushi; Wada, Yuji

PATENT ASSIGNEE(S): Sanko Chemical Industry Co., Ltd., Japan

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004089883	A1	20041021	WO 2004-JP4719	20040331
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2004345955	A	20041209	JP 2003-100352	20030403
JP 2005075757	A	20050324	JP 2003-306348	20030829
EP 1612205	A1	20060104	EP 2004-724844	20040331
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
CN 1768032	A	20060503	CN 2004-80009129	20040331
US 2006217574	A1	20060928	US 2005-551481	20050929
PRIORITY APPLN. INFO.:			JP 2003-100352	A 20030403
			JP 2003-306348	A 20030829
			WO 2004-JP4719	W 20040331

OTHER SOURCE(S): CASREACT 141:349924

AB Disclosed is a method for producing 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone (I), which comprises subjecting 4,4'-diallyloxydiphenyl sulfone (II) to Claisen rearrangement reaction under the irradiation with a microwave, preferably in a molten state, more preferably further in a substantially oxygen-free atmospheric and in the presence of at least one compound selected from

the group consisting of an antioxidant, an organic base compound and a chelate compound. The method allows the production of the objective compound having a high purity with good efficiency in a short time in good yield without using solvent. Thus, 10.00 g II and 0.01 g N,N-dimethylaniline were added to a quartz flask fitted with a temperature sensor and a magnetic stirrer, purged with N₂, and irradiated with microwave (2,450 MHz and 100 W) under a stream of N₂. After melting at 160°, the temperature was maintained at 280° for 5 min by turning on and off the irradiation. The reaction mixture was dissolved in 10 weight% aqueous NaOH solution, decolorized by

stirring with a small quantity of activated charcoal, filtered, neutralized with HCl for precipitating crystals to give 80-90% I.

IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone

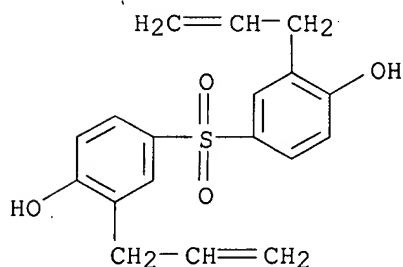
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone by Claisen rearrangement of 4,4'-diallyloxydiphenyl sulfone under microwave

irradiation in presence of antioxidant, organic base compound, or
chelate compound)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

with antioxidant.

=> D L4 IBIB ABS HITSTR 1-3

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:878367 CAPLUS

DOCUMENT NUMBER: 141:349924

TITLE: Method for producing 3,3'-diallyl-4,4'-
dihydroxydiphenyl sulfone

INVENTOR(S): Yanagida, Shozo; Enokida, Hirotaka; Fujimoto, Masaki;
Nakamura, Katsunori; Yamamoto, Tetsushi; Wada, Yuji

PATENT ASSIGNEE(S): Sanko Chemical Industry Co., Ltd., Japan

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
JP 2004345955	A	20041209	JP 2003-100352	20030403
JP 2005075757	A	20050324	JP 2003-306348	20030829
EP 1612205	A1	20060104	EP 2004-724844	20040331
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK			
CN 1768032	A	20060503	CN 2004-80009129	20040331
US 2006217574	A1	20060928	US 2005-551481	20050929
PRIORITY APPLN. INFO.:			JP 2003-100352	A 20030403
			JP 2003-306348	A 20030829
			WO 2004-JP4719	W 20040331

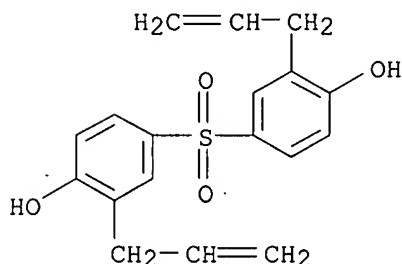
OTHER SOURCE(S): CASREACT 141:349924

AB Disclosed is a method for producing 3,3'-diallyl-4,4'-dihydroxydiphenyl

sulfone (I), which comprises subjecting 4,4'-diallyloxydiphenyl sulfone (II) to Claisen rearrangement reaction under the irradiation with a microwave, preferably in a molten state, more preferably further in a substantially oxygen-free atmospheric and in the presence of at least one compound selected from the group consisting of an antioxidant, an organic base compound and a chelate compound. The method allows the production of the objective compound having a high purity with good efficiency in a short time in good yield without using solvent. Thus, 10.00 g II and 0.01 g N,N-dimethylaniline were added to a quartz flask fitted with a temperature sensor and a magnetic stirrer, purged with N, and irradiated with microwave (2,450 MHz and 100 W) under a stream of N. After melting at 160°, the temperature was maintained at 280° for 5 min by turning on and off the irradiation. The reaction mixture was dissolved in 10 weight% aqueous NaOH solution, decolorized by stirring with a small quantity of activated charcoal, filtered, neutralized with HCl for precipitating crystals to give 80-90% I.

IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone by Claisen rearrangement of 4,4'-diallyloxydiphenyl sulfone under microwave irradiation in presence of antioxidant, organic base compound, or chelate compound)

RN 41481-66-7 CAPLUS
 CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:77463 CAPLUS
 DOCUMENT NUMBER: 136:118267
 TITLE: Preparation of 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone as color developer for thermal recording materials
 INVENTOR(S): Kameoka, Ikuo; Tsuge, Yoshiki; Nishikawa, Makoto; Yoshino, Takeshi; Takahashi, Toshiaki
 PATENT ASSIGNEE(S): Nikka Chemical Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002030064	A	20020129	JP 2000-216356	20000717
PRIORITY APPLN. INFO.:			JP 2000-216356	20000717
OTHER SOURCE(S):		CASREACT 136:118267		

AB Title compound (I), which is free from impurities causing fog, is prepared by thermal rearrangement of 4,4'-diallyloxydiphenyl sulfone (II) containing

≤50 weight ppm (as NaOH) alkalies in the presence of 0.01-1 weight% amines and/or antioxidants. II (alkali content 5 ppm) was heated in Diana Fresia W 8-kerosene mixture in the presence of N,N-dimethylaniline and hydroquinone monomethyl ether at 205-210° for 7 h, treated with activated C, and recrystd. from dichloroethane to give I with 97.1% purity and indan derivative content 0.2%.

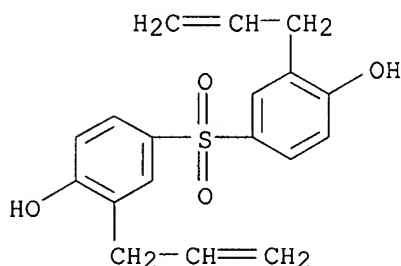
IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(preparation of diallyldihydroxydiphenyl sulfone as color developer for thermal recording materials)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)



L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1988:430201 CAPLUS

DOCUMENT NUMBER: 109:30201

TITLE: Thermographic copying paper containing fluoran and hydroxydiphenyl sulfone for fading-resistant images

INVENTOR(S): Katsuta, Shinichiro; Toyoda, Tadashi; Unno, Tomoyuki

PATENT ASSIGNEE(S): Kohjin Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

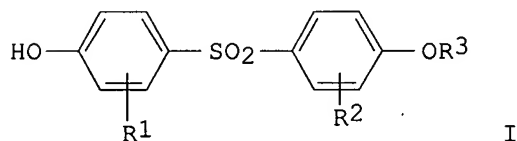
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62225391	A	19871003	JP 1986-67312	19860327
PRIORITY APPLN. INFO.:			JP 1986-67312	19860327

GI



AB The thermosensitive layer of a thermog. copying paper contains 3-diethylamino-6-methyl-7-anilino-fluoran and/or 3-pyrrolidino-6-methyl-7-anilino-fluoran as a colorless or pale color former, a hydroxydiphenyl sulfone derivative I (R1-3 = H, C≤5 alkyl, or C≤5 alkenyl) as a developer, and a heat-melting material. The paper gives images having excellent color d. and fading of the images is prevented. Thus, a paper was coated with a mixture of an aqueous solution containing 3-diethylamino-6-methyl-7-

anilinofluoran, an aqueous solution containing I (R1-3 = H), stearamide, and Zn stearate, polyvinyl alc., and a dispersion containing clay and CaCO₃ and dried to obtain a thermal copying paper which gave vinyl chloride-resistant images.

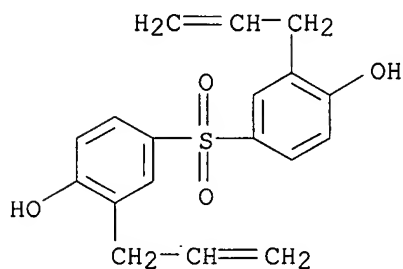
IT 41481-66-7

RL: USES (Uses)

(thermog. copying paper containing leuco dye and, for fading-resistant images)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)



* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 07:22:46 ON 05 OCT 2007

=> FILE REG

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 07:23:21 ON 05 OCT 2007

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STRUCTURE FILE UPDATES: 4 OCT 2007 HIGHEST RN 949197-90-4

DICTIONARY FILE UPDATES: 4 OCT 2007 HIGHEST RN 949197-90-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

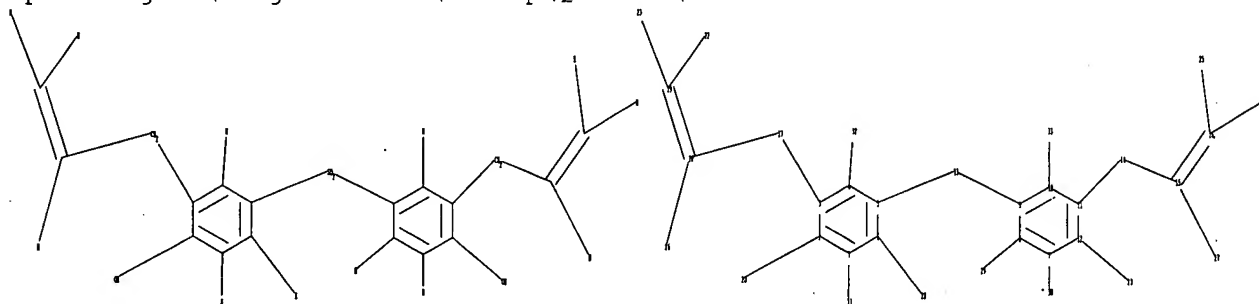
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\BOY-14.str



chain nodes :

13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12

chain bonds :

1-31 2-20 3-17 4-32 5-13 6-28 7-30 8-29 9-13 10-33 11-14 12-21 14-15
15-16 15-27 16-24 16-25 17-18 18-19 18-26 19-22 19-23

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

exact/norm bonds :

2-20 12-21

exact bonds :

1-31 3-17 4-32 5-13 6-28 7-30 8-29 9-13 10-33 11-14 14-15 15-16 15-27
16-24 16-25 17-18 18-19 18-26 19-22 19-23

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom

11:Atom 12:Atom 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS

19:CLASS 20:CLASS 21:CLASS

22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS

30:CLASS

31:CLASS 32:CLASS 33:CLASS

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NEWS	16	AUG 27	USPATOLD now available on STN
NEWS	17	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data
NEWS	18	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS	19	SEP 13	FORIS renamed to SOFIS
NEWS	20	SEP 13	INPADOCDB enhanced with monthly SDI frequency
NEWS	21	SEP 17	CA/CAPplus enhanced with printed CA page images from 1967-1998
NEWS	22	SEP 17	CAPplus coverage extended to include traditional medicine patents
NEWS	23	SEP 24	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS	24	OCT 02	CA/CAPplus enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS EXPRESS	19	SEPTEMBER 2007:	CURRENT WINDOWS VERSION IS V8.2, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.
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<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

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L1 STRUCTURE UPLOADED

=> D L1

L1 HAS NO ANSWERS

L1 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> S L1 FULL

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FULL SCREEN SEARCH COMPLETED - 80 TO ITERATE

100.0% PROCESSED 80 ITERATIONS

21 ANSWERS

SEARCH TIME: 00.00.01

L2 21 SEA SSS FUL L1

=> FILE CAPLUS

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

172.10

172.31

FILE 'CAPLUS' ENTERED AT 07:24:00 ON 05 OCT 2007
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FILE COVERS 1907 - 5 Oct 2007 VOL 147 ISS 16
FILE LAST UPDATED: 4 Oct 2007 (20071004/ED)

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=> S L2

L3 402 L2

=> S L3 AND REARRANGEMENT

132061 REARRANGEMENT

L4 15 L3 AND REARRANGEMENT

=> S L4 AND MICROWAVE

122326 MICROWAVE

L5 2 L4 AND MICROWAVE

=> D L5 IBIB ABS HITSTR 1-2

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:878367 CAPLUS

DOCUMENT NUMBER: 141:349924

TITLE: Method for producing 3,3'-diallyl-4,4'-
dihydroxydiphenyl sulfone

INVENTOR(S): Yanagida, Shozo; Enokida, Hirotaka; Fujimoto, Masaki;
Nakamura, Katsunori; Yamamoto, Tetsushi; Wada, Yuji

PATENT ASSIGNEE(S): Sanko Chemical Industry Co., Ltd., Japan

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,			

SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
 TD, TG
 JP 2004345955 A 20041209 JP 2003-100352 20030403
 JP 2005075757 A 20050324 JP 2003-306348 20030829
 EP 1612205 A1 20060104 EP 2004-724844 20040331
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK
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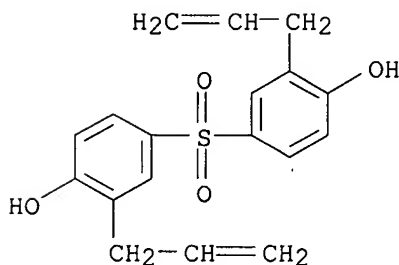
OTHER SOURCE(S): CASREACT 141:349924

AB Disclosed is a method for producing 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone (I), which comprises subjecting 4,4'-diallyloxydiphenyl sulfone (II) to Claisen rearrangement reaction under the irradiation with a microwave, preferably in a molten state, more preferably further in a substantially oxygen-free atmospheric and in the presence of at least one compound selected from the group consisting of an antioxidant, an organic base compound and a chelate compound. The method allows the production of the objective compound having a high purity with good efficiency in a short time in good yield without using solvent. Thus, 10.00 g II and 0.01 g N,N-dimethylaniline were added to a quartz flask fitted with a temperature sensor and a magnetic stirrer, purged with N, and irradiated with microwave (2,450 MHz and 100 W) under a stream of N. After melting at 160°, the temperature was maintained at 280° for 5 min by turning on and off the irradiation. The reaction mixture was dissolved in 10 weight% aqueous NaOH solution, decolorized by stirring with a small quantity of activated charcoal, filtered, neutralized with HCl for precipitating crystals

to

give 80-90% I.

IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone by Claisen rearrangement of 4,4'-diallyloxydiphenyl sulfone under microwave irradiation in presence of antioxidant, organic base compound, or chelate compound)
 RN 41481-66-7 CAPLUS
 CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:958526 CAPLUS
 DOCUMENT NUMBER: 141:190554
 TITLE: Microwave-assisted solvent-free instantaneous Claisen rearrangement for synthesis of bis(3-allyl-4-hydroxyphenyl) sulfone
 AUTHOR(S): Yamamoto, Tetsushi; Wada, Yuji; Enokida, Hirotaka; Fujimoto, Masaki; Nakamura, Katsunori; Yanagida, Shozo

CORPORATE SOURCE: Material and Life Science, Graduate School of
Engineering, Osaka University, Suita, Osaka, 565-0871,
Japan

SOURCE: Green Chemistry (2003), 5(6), 690-692
CODEN: GRCHFJ; ISSN: 1463-9262

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

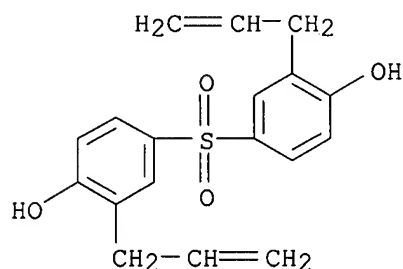
OTHER SOURCE(S): CASREACT 141:190554

AB Solvent-free Claisen rearrangement of bis(4-allyloxyphenyl)
sulfone under microwave irradiation for 5 min gave high yields of
bis(3-allyl-4-hydroxyphenyl) sulfone, which has been synthesized up to now
under conventional heating for 2-30 h as a color developer for a heat- or
pressure-sensitive recording in industry.

IT 41481-66-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(solvent-free, microwave irradiated Claisen
rearrangement of bis(allyloxyphenyl) sulfone)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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<http://www.cas.org/support/stngen/stndoc/properties.html>

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L1 STRUCTURE UPLOADED

=> D L1

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L1 STR

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Structure attributes must be viewed using STN Express query preparation.

=> S L1 FULL

FULL SEARCH INITIATED 07:23:49 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 80 TO ITERATE

100.0% PROCESSED 80 ITERATIONS

21 ANSWERS

SEARCH TIME: 00.00.01

L2 21 SEA SSS FUL L1

=> FILE CAPLUS

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FILE LAST UPDATED: 4 Oct 2007 (20071004/ED)

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=> S L2

L3 402 L2

=> S L3 AND REARRANGEMENT

132061 REARRANGEMENT

L4 15 L3 AND REARRANGEMENT

=> S L4 AND MICROWAVE

122326 MICROWAVE

L5 2 L4 AND MICROWAVE

=> D L5 IBIB ABS HITSTR 1-2

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:878367 CAPLUS

DOCUMENT NUMBER: 141:349924

TITLE: Method for producing 3,3'-diallyl-4,4'-
dihydroxydiphenyl sulfoneINVENTOR(S): Yanagida, Shozo; Enokida, Hirotaka; Fujimoto, Masaki;
Nakamura, Katsunori; Yamamoto, Tetsushi; Wada, Yuji

PATENT ASSIGNEE(S): Sanko Chemical Industry Co., Ltd., Japan

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004089883	A1	20041021	WO 2004-JP4719	20040331
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
JP 2004345955	A	20041209	JP 2003-100352	20030403
JP 2005075757	A	20050324	JP 2003-306348	20030829
EP 1612205	A1	20060104	EP 2004-724844	20040331
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CN 1768032	A	20060503	CN 2004-80009129	20040331
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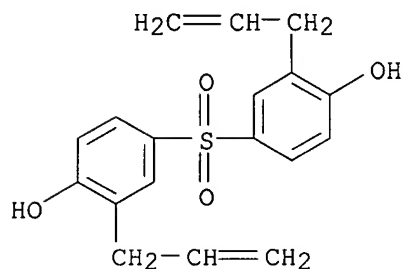
OTHER SOURCE(S): CASREACT 141:349924

AB Disclosed is a method for producing 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone (I), which comprises subjecting 4,4'-diallyloxydiphenyl sulfone (II) to Claisen rearrangement reaction under the irradiation with a microwave, preferably in a molten state, more preferably further in a substantially oxygen-free atmospheric and in the presence of at least one compound selected from the group consisting of an antioxidant, an organic base compound and a chelate compound. The method allows the production of the objective compound having a high purity with good efficiency in a short time in good yield without using solvent. Thus, 10.00 g II and 0.01 g N,N-dimethylaniline were added to a quartz flask fitted with a temperature sensor and a magnetic stirrer, purged with N₂, and irradiated with microwave (2,450 MHz and 100 W) under a stream of N₂. After melting at 160°, the temperature was maintained at 280° for 5 min by turning on and off the irradiation. The reaction mixture was dissolved in 10

weight% aqueous NaOH solution, decolorized by stirring with a small quantity of activated charcoal, filtered, neutralized with HCl for precipitating crystals to give 80-90% I.

IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone by Claisen rearrangement of 4,4'-diallyloxydiphenyl sulfone under microwave irradiation in presence of antioxidant, organic base compound, or chelate compound)

RN 41481-66-7 CAPLUS
 CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:958526 CAPLUS
 DOCUMENT NUMBER: 141:190554
 TITLE: Microwave-assisted solvent-free instantaneous Claisen rearrangement for synthesis of bis(3-allyl-4-hydroxyphenyl) sulfone

AUTHOR(S): Yamamoto, Tetsushi; Wada, Yuji; Enokida, Hirotaka; Fujimoto, Masaki; Nakamura, Katsunori; Yanagida, Shozo

CORPORATE SOURCE: Material and Life Science, Graduate School of Engineering, Osaka University, Suita, Osaka, 565-0871, Japan

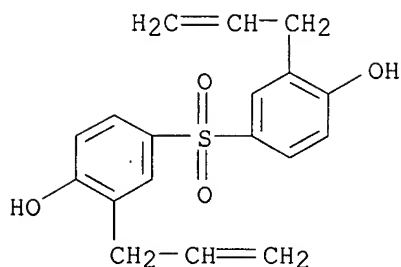
SOURCE: Green Chemistry (2003), 5(6), 690-692
 CODEN: GRCHFJ; ISSN: 1463-9262

PUBLISHER: Royal Society of Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 141:190554

AB Solvent-free Claisen rearrangement of bis(4-allyloxyphenyl) sulfone under microwave irradiation for 5 min gave high yields of bis(3-allyl-4-hydroxyphenyl) sulfone, which has been synthesized up to now under conventional heating for 2-30 h as a color developer for a heat- or pressure-sensitive recording in industry.

IT 41481-66-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (solvent-free, microwave irradiated Claisen rearrangement of bis(allyloxyphenyl) sulfone)

RN 41481-66-7 CAPLUS
 CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D L4 IBIB ABS HITSTR 1-15

L4 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:911709 CAPLUS

DOCUMENT NUMBER: 147:118902

TITLE: Synthesis and properties of novel allyl group-containing diamine curing agents

AUTHOR(S): Liu, Jin-gang; Zhao, Xiao-juan; Yang, Hai-xia; Shi, Jin-qi

CORPORATE SOURCE: Laboratory of Advanced Polymer Materials, Institute of Chemistry, Chinese Academy of Sciences, Beijing, 100080, Peop. Rep. China

SOURCE: Reguxing Shuzhi (2006), 21(3), 5-8

CODEN: RESHEQ; ISSN: 1002-7432

PUBLISHER: Reguxing Shuzhi Bianjibu

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB A series of allyl bisphenol compds. had been synthesized via condensation reaction of allyl bromide and aromatic diphenols, followed by thermal rearrangement reaction. Novel allyl group-containing diamine curing agents were developed by Williamson's reaction of the obtained allyl bisphenol compds. and 4-bromo-1-nitrobenzene, followed by reduction reactions. The curing properties of the new curing agent, 2,2-bis[4'-(4"-aminophenoxy)-3'-allylphenyl]propane (APAP) to epoxy resins and bismaleimides were researched. It was shown that the curing agent exhibited good curing effect to the resins, the curing reactions of APAP - BMDM and APAP-DGEBA were taken place over a wide range of temperature, their temps. at exothermal peak were 256.2 and 190.7 degrees resp., the glass transition temperature of cured APAP-DGEBA was 154.4 degrees but there was no glass state transition for the cured APAP-BMDM in test conditions and the curing resin showed good thermal stability and solvent resistance, such that the starting decomposition temperature of APAP-BMDM cured and the carbon residue

in 700 degrees were 426.8 degrees and 46.5 percent and were increased with 52.6 degrees and 23.4 percent resp. more than that of APAP-DGEBA cured and the two thermosets were hardly dissolved in common solvents such as NMP, DMF, DMAc, phenol solvent and strong base (30% NaOH), strong acid (concentrated sulfuric acid) solns.

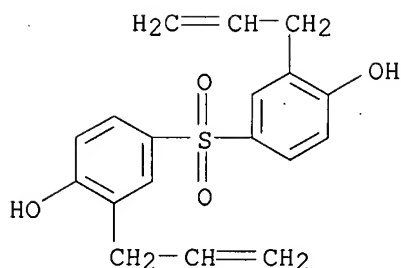
IT 41481-66-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(in synthesis and properties of novel allyl group-containing diamine curing agents)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)



L4 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2004:878367 CAPLUS
 DOCUMENT NUMBER: 141:349924
 TITLE: Method for producing 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone
 INVENTOR(S): Yanagida, Shozo; Enokida, Hirotaka; Fujimoto, Masaki; Nakamura, Katsunori; Yamamoto, Tetsushi; Wada, Yuji
 PATENT ASSIGNEE(S): Sanko Chemical Industry Co., Ltd., Japan
 SOURCE: PCT Int. Appl., 16 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004089883	A1	20041021	WO 2004-JP4719	20040331
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2004345955	A	20041209	JP 2003-100352	20030403
JP 2005075757	A	20050324	JP 2003-306348	20030829
EP 1612205	A1	20060104	EP 2004-724844	20040331
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
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PRIORITY APPLN. INFO.:			JP 2003-100352	A 20030403
			JP 2003-306348	A 20030829
			WO 2004-JP4719	W 20040331

OTHER SOURCE(S): CASREACT 141:349924

AB Disclosed is a method for producing 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone (I), which comprises subjecting 4,4'-diallyloxydiphenyl sulfone (II) to Claisen rearrangement reaction under the irradiation with a microwave, preferably in a molten state, more preferably further in a substantially oxygen-free atmospheric and in the presence of at least one compound

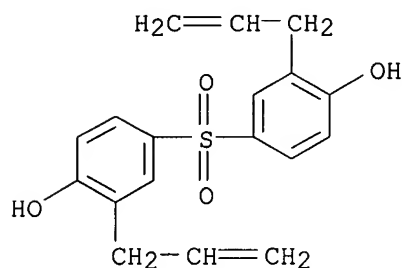
selected from the group consisting of an antioxidant, an organic base compound and a chelate compound The method allows the production of the objective compound

having a high purity with good efficiency in a short time in good yield without using solvent. Thus, 10.00 g II and 0.01 g N,N-dimethylaniline were added to a quartz flask fitted with a temperature sensor and a magnetic

stirrer, purged with N, and irradiated with microwave (2,450 MHz and 100 W) under a stream of N. After melting at 160°, the temperature was maintained at 280° for 5 min by turning on and off the irradiation. The reaction mixture was dissolved in 10 weight% aqueous NaOH solution, decolorized by stirring with a small quantity of activated charcoal, filtered, neutralized with HCl for precipitating crystals to give 80-90% I.

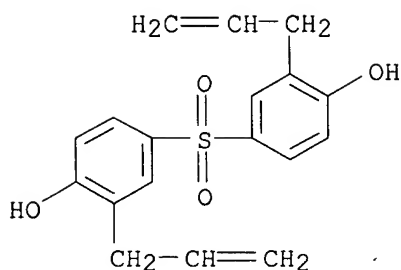
IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone by Claisen rearrangement of 4,4'-diallyloxydiphenyl sulfone under microwave irradiation in presence of antioxidant, organic base compound, or chelate compound)

RN 41481-66-7 CAPLUS
 CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:958526 CAPLUS
 DOCUMENT NUMBER: 141:190554
 TITLE: Microwave-assisted solvent-free instantaneous Claisen rearrangement for synthesis of bis(3-allyl-4-hydroxyphenyl) sulfone
 AUTHOR(S): Yamamoto, Tetsushi; Wada, Yuji; Enokida, Hirotaka; Fujimoto, Masaki; Nakamura, Katsunori; Yanagida, Shozo
 CORPORATE SOURCE: Material and Life Science, Graduate School of Engineering, Osaka University, Suita, Osaka, 565-0871, Japan
 SOURCE: Green Chemistry (2003), 5(6), 690-692
 CODEN: GRCHFJ; ISSN: 1463-9262
 PUBLISHER: Royal Society of Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 141:190554
 AB Solvent-free Claisen rearrangement of bis(4-allyloxyphenyl) sulfone under microwave irradiation for 5 min gave high yields of bis(3-allyl-4-hydroxyphenyl) sulfone, which has been synthesized up to now under conventional heating for 2-30 h as a color developer for a heat- or pressure-sensitive recording in industry.
 IT 41481-66-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (solvent-free, microwave irradiated Claisen rearrangement of bis(allyloxyphenyl) sulfone)
 RN 41481-66-7 CAPLUS
 CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

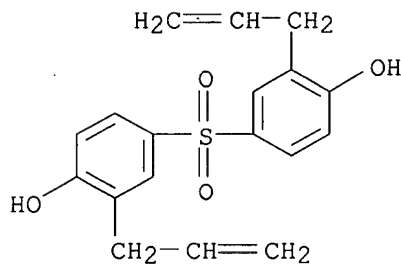
L4 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:286132 CAPLUS
 DOCUMENT NUMBER: 136:309756
 TITLE: Preparation of 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone for color developer for thermal printing materials
 INVENTOR(S): Kameoka, Ikuo; Tsuge, Koki; Nishikawa, Makoto; Takahashi, Toshiaki
 PATENT ASSIGNEE(S): Nikka Chemical Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002114757	A	20020416	JP 2000-311500	20001012
PRIORITY APPLN. INFO.:			JP 2000-311500	20001012
OTHER SOURCE(S): CASREACT 136:309756				

AB The compound is prepared by thermal rearrangement of 4,4'-diallyloxydiphenyl sulfone in the presence of 0.5-20 mol equivalent (based on alkalis in 4,4'-diallyloxydiphenyl sulfone) of acid. 4,4'-Diallyloxydiphenyl sulfone was heated with H2SO4 in paraffin solvent at 205-210° for 7 h to give a reaction mixture containing 92.4 area% (by HPLC) 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone.

IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (preparation of diallyldihydroxydiphenyl sulfone)

RN 41481-66-7 CAPLUS
 CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



L4 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:77464 CAPLUS
 DOCUMENT NUMBER: 136:118268

TITLE: Preparation of 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone as color developer for thermal recording materials

INVENTOR(S): Tsuge, Yoshiki; Kameoka, Ikuo; Nishikawa, Makoto; Yoshino, Takeshi; Takahashi, Toshiaki

PATENT ASSIGNEE(S): Nikka Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002030065	A	20020129	JP 2000-216357	20000717
PRIORITY APPLN. INFO.:			JP 2000-216357	20000717

OTHER SOURCE(S): CASREACT 136:118268

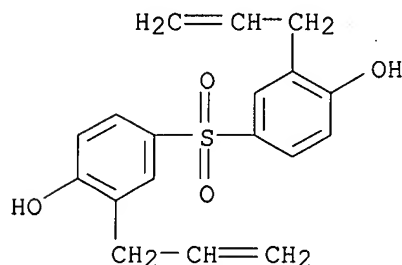
AB Title compound (I), which is free from impurities causing fog, is prepared by thermal rearrangement of 4,4'-diallyloxydiphenyl sulfone (II) containing ≤50 weight ppm (as NaOH) alkalies. II (alkali content 5 ppm) was heated in Diana Fresia W 8 -kerosene mixture at 205-210° for 7 h, treated with activated C, and recrystd. from dichloroethane to give I with 96.2% purity and indan derivative content 0.3%.

IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(preparation of diallyldihydroxydiphenyl sulfone as color developer for thermal recording materials)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



L4 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:77463 CAPLUS

DOCUMENT NUMBER: 136:118267

TITLE: Preparation of 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone as color developer for thermal recording materials

INVENTOR(S): Kameoka, Ikuo; Tsuge, Yoshiki; Nishikawa, Makoto; Yoshino, Takeshi; Takahashi, Toshiaki

PATENT ASSIGNEE(S): Nikka Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002030064	A	20020129	JP 2000-216356	20000717

PRIORITY APPLN. INFO.:

JP 2000-216356

20000717

OTHER SOURCE(S): CASREACT 136:118267

AB Title compound (I), which is free from impurities causing fog, is prepared by thermal rearrangement of 4,4'-diallyloxydiphenyl sulfone (II) containing ≤ 50 weight ppm (as NaOH) alkalis in the presence of 0.01-1 weight% amines and/or antioxidants. II (alkali content 5 ppm) was heated in Diana Fresia W 8-kerosene mixture in the presence of N,N-dimethylaniline and hydroquinone monomethyl ether at 205-210° for 7 h, treated with activated C, and recrystd. from dichloroethane to give I with 97.1% purity and indan derivative content 0.2%.

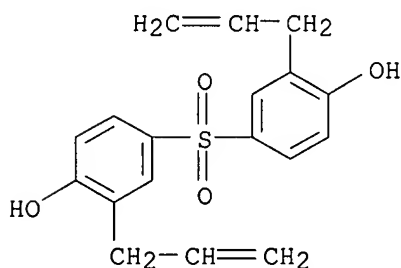
IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(preparation of diallyldihydroxydiphenyl sulfone as color developer for thermal recording materials)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)



L4 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:481081 CAPLUS

DOCUMENT NUMBER: 131:151759

TITLE: Thermal recording materials for images with good oil and plasticizer resistance

INVENTOR(S): Okuda, Masatoshi; Yonese, Naoki

PATENT ASSIGNEE(S): Oji Paper Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11208122	A	19990803	JP 1998-9425	19980121
PRIORITY APPLN. INFO.:			JP 1998-9425	19980121

AB The materials comprise supports coated with heat-sensitive recording layers containing leuco dyes, 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone developers, and 4-benzyloxyphenyl-4'-(2-methyl-2,3-epoxypropyloxy)phenyl sulfone storage modifiers. The developers are obtained by Claisen rearrangement of 4,4'-diallyloxydiphenyl sulfone and have content of 3-allyl-4,4'-dihydroxydiphenyl sulfone and 5-(3-allyl-4-hydroxy)diphenyl sulfone-1-oxa-2-methylindan $\leq 0.5\%$. The materials give fog-free images with good oil and plasticizer resistance.

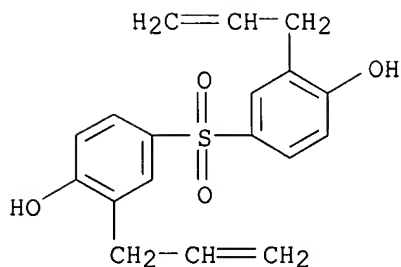
IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(thermal recording materials containing sulfone developers for oil- and plasticizer-resistant images)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)



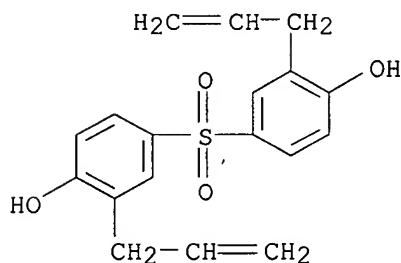
L4 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:481080 CAPLUS
 DOCUMENT NUMBER: 131:151758
 TITLE: Thermal recording materials for images with good storage stability
 INVENTOR(S): Watanabe, Kazuo; Iwasaki, Nobuyuki
 PATENT ASSIGNEE(S): Oji Paper Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11208121	A	19990803	JP 1998-9424	19980121
PRIORITY APPLN. INFO.:			JP 1998-9424	19980121

AB In the materials having heat-sensitive recording layers, protective layers, and backcoat layers containing re-wetting pastes or adhesives, developers comprise 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone obtained by Claisen rearrangement of 4,4'-diallyloxydiphenyl sulfone and have content of 3-allyl-4,4'-dihydroxydiphenyl sulfone and 5-(3-allyl-4-hydroxy)diphenyl sulfone-1-oxa-2-methylindan $\leq 0.5\%$. The materials give fog-free images with good storage stability and light resistance.

IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (sulfone developers of thermal recording materials for images with good storage stability)

RN 41481-66-7 CAPLUS
 CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



L4 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:463013 CAPLUS
 DOCUMENT NUMBER: 131:136813

TITLE: Heat-sensitive recording material containing allyl dihydroxydiphenylsulfone
 INVENTOR(S): Michikawa, Kohei; Okada, Kiyomi
 PATENT ASSIGNEE(S): Oji Paper Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

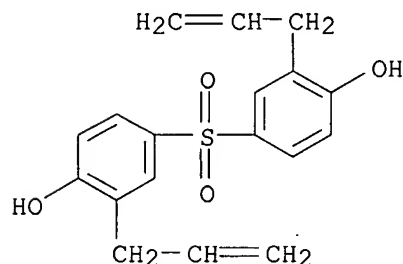
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11198545	A	19990727	JP 1998-8754	19980120
PRIORITY APPLN. INFO.:			JP 1998-8754	19980120

AB The material has a transparent support coated with a leuco dye- and coloring agent-containing heat-sensitive recording layer and an optional protective layer, in which the developer (average particle size 0.1-1.0 μ m) comprises 3,3'-diallyl-4,4'-dihydroxydiphenylsulfone, manufactured by Claisen rearrangement of 4,4'-diallyloxydiphenylsulfone, containing \leq 0.5% 3-allyl-4,4'-dihydroxydiphenylsulfone and 5-(3-allyl-4-hydroxy)diphenylsulfone-1-oxa-2-methylindane. The material gives clear images with storage stability.

IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenylsulfone
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (heat-sensitive recording material containing dihydroxydiphenylsulfone coloring agent)

RN 41481-66-7 CAPLUS

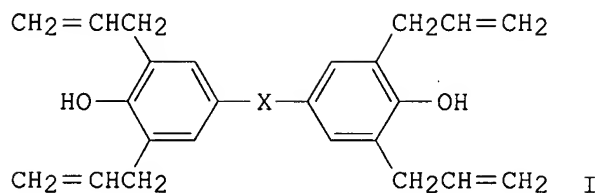
CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)



L4 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1993:82050 CAPLUS
 DOCUMENT NUMBER: 118:82050
 TITLE: Aromatic polyallyl compounds as materials for resins
 INVENTOR(S): Satomura, Masato; Takeda, Akihiko
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04288031	A	19921013	JP 1991-49704	19910314
PRIORITY APPLN. INFO.:			JP 1991-49704	19910314
OTHER SOURCE(S):			MARPAT 118:82050	

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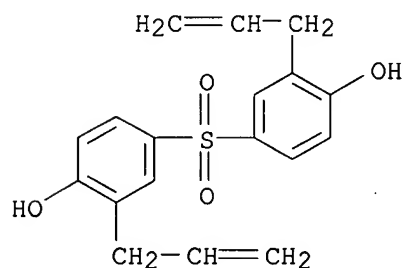


AB The title compds. I [X = direct bond, SO₂, CR₁R₂, S, O; R₁-2 = H, C₁-8 (un)substituted alkyl, aryl; R₁R₂ may be bonded to form a 5- or 6-membered ring], useful as materials for thermosetting resins or epoxy resins, are prepared Thus, treating 0.1 mol bis(3-allyl-4-hydroxyphenyl) sulfone with 0.21 mol allyl bromide in AcNMe₂ in presence of K₂CO₃ at 70° for 5 h gave bis(3-allyl-4-allyloxyphenyl) sulfone, which was heated at 200° for 6 h to give I (X = SO₂).

IT 41481-66-7, Bis(3-allyl-4-hydroxyphenyl) sulfone
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (etherification of, with allyl bromide)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



L4 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1993:60708 CAPLUS

DOCUMENT NUMBER: 118:60708

TITLE: Aromatic polyallyl compounds as materials for resins

INVENTOR(S): Satomura, Masato; Takeda, Akihiko

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF

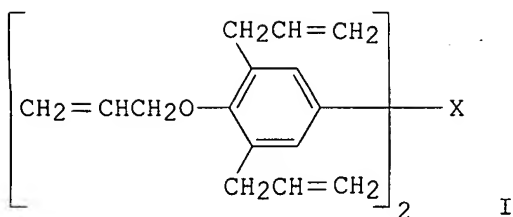
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04282336	A	19921007	JP 1991-43885	19910308
PRIORITY APPLN. INFO.: GI			JP 1991-43885	19910308

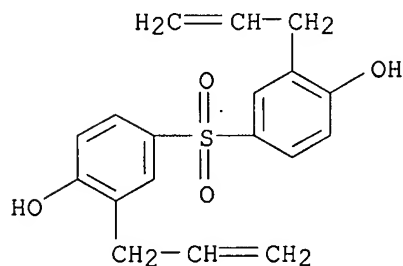


AB The title compds. I (X = direct bond, SO₂, CR₁R₂, S, O; R₁-2 = H, C1-8 alkyl; R₁R₂ may be bonded to form a 5- or 6-membered ring), useful as materials for thermosetting resins or epoxy resins, are prepared Thus, treating 0.1 mol bis(3-allyl-4-hydroxyphenyl) sulfone with 0.21 mol allyl bromide in AcNMe₂ in presence of K₂CO₃ at 70° for 5 h gave bis(3-allyl-4-allyloxyphenyl) sulfone, which was heated at 200° for 6 h to give bis(3,5-diallyl-4-hydroxyphenyl) sulfone (II). Then, II was further treated with 0.21 mol allyl bromide in AcNMe₂ to give I (X = SO₂).

IT 41481-66-7, Bis(3-allyl-4-hydroxyphenyl) sulfone
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (etherification of, with allyl bromide)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)



L4 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1987:587555 CAPLUS

DOCUMENT NUMBER: 107:187555

TITLE: Bisphenol S derivatives as developers for heat-sensitive recording paper

INVENTOR(S): Ikeda, Fukuji; Takahashi, Toshiaki

PATENT ASSIGNEE(S): Nikka Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62053957	A	19870309	JP 1985-191972	19850902
JP 03033153	B	19910516		

PRIORITY APPLN. INFO.: JP 1985-191972 19850902

AB In manufacturing 3,3'-diallyl-4,4'-dihydroxydiphenylsulfone by the Claisen rearrangement of 4,4'-diallyloxydiphenylsulfone, the reaction is controlled so that the final reaction mixture contains the half-rearranged product, 3-allyl-4-hydroxy-4'-allyloxydiphenylsulfone, 5-20% of the starting material and the completely rearranged product, 3,3'-diallyl-4,4'-dihydroxydiphenylsulfone, ≤90%. The product is recrystd. in a dichloroalkane, aromatic, and alc., glycol, or ether mixed

[(10-9):(10-90):(0.1-30) weight%] solvent. The bisphenol S derivs. prepared in the manner give color developers for heat-sensitive recording sheets characterized by low fog.

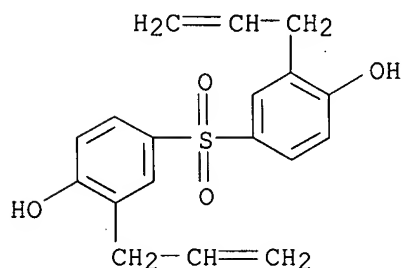
IT 41481-66-7P

RL: PREP (Preparation)

(preparation of, by Claisen rearrangement, as heat-sensitive recording color developer)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)



L4 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1986:168122 CAPLUS

DOCUMENT NUMBER: 104:168122

TITLE: Phenol derivatives useful in thermal recording materials

INVENTOR(S): Shinmoto, Masaki

PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd. , Japan

SOURCE: Ger. Offen., 22 pp.

CODEN: GWXXBX

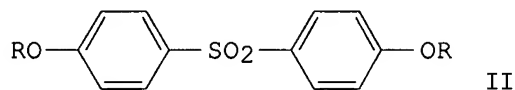
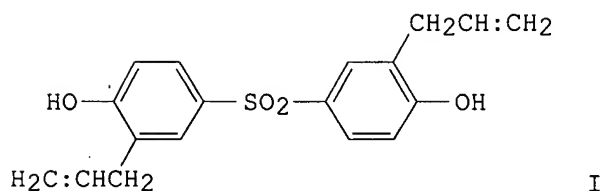
DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1.

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3504482	A1	19850814	DE 1985-3504482	19850209
DE 3504482	C2	19920312		
JP 60169456	A	19850902	JP 1984-24311	19840214
JP 60208286	A	19851019	JP 1984-63277	19840402
JP 03034475	B	19910522		
GB 2154236	A	19850904	GB 1985-2407	19850131
GB 2154236	B	19870520		
US 4596997	A	19860624	US 1985-696913	19850131
CH 662785	A5	19871030	CH 1985-644	19850212
PRIORITY APPLN. INFO.:			JP 1984-24311	A 19840214
			JP 1984-63277	A 19840402
OTHER SOURCE(S):		CASREACT 104:168122		
GI				



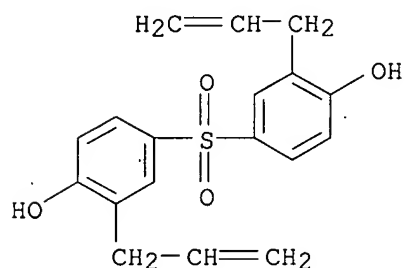
AB Bis(3-allyl-4-hydroxyphenyl)sulfone (I) is prepared by condensation of the sulfone II (R = H, alkali metal) with allyl derivative $\text{H}_2\text{C}:\text{CHCH}_2\text{R}_1$ [R_1 = halo, R_2SO_3 ; R_2 = alkyl, (un)substituted Ph], followed by rearrangement of the reaction product. Thus, a mixture of 4,4'-sulfonyldiphenol, toluene, NaOH and water was treated with $\text{H}_2\text{C}:\text{CHCH}_2\text{Br}$ in the presence of trioctylmethylammonium chloride, to give bis(4-allyloxyphenyl) sulfone, which was heated in trichlorobenzene at $216-219^\circ$, to give I. Compns. containing I and a leuco dye are used in thermal recording materials. These compns. scored high in color formation as well as in water-, moisture-, and plasticizer-resistance tests.

IT 41481-66-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as thermal recording material)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1978:508953 CAPLUS

DOCUMENT NUMBER: 89:108953

TITLE: Studies on 4,4'-dihydroxydiphenyl sulfone and
4,4'-dihydroxydiphenyl ether

AUTHOR(S): Prajapati, S. P.; Pardanani, J. H.; Sethna, Suresh
CORPORATE SOURCE: Fac. Sci., Maharaja Sayajirav Univ. Boroda, Baroda,
India

SOURCE: Journal of the Indian Chemical Society (1977), 54(10),
971-4

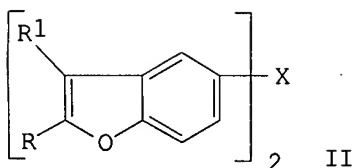
CODEN: JICSAH; ISSN: 0019-4522

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 89:108953

GI

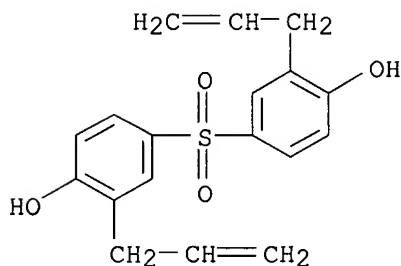


AB Fries rearrangement of (4-AcOC₆H₄)₂X (X = O, SO₂) gave [3,4-Ac(HO)C₆H₃]₂X (I). Condensation of I (X = SO₂) with PhCHO and subsequent cyclocondensation-dehydrogenation gave bis(6-flavonyl) sulfone. Rearrangement of the di-O-benzoyl derivative of I (X = O) gave [3,4-(PhCOCH₂CO)(HO)C₆H₃]₂O, which cyclized in concentrated H₂SO₄ to give bis(6-flavonyl) ether. Treatment of I with BrCH₂CO₂Et and subsequent hydrolysis and cyclocondensation gave the benzofurans II (R = H, R₁ = Me; X = O, SO₂). II (R = Me, R₁ = H, X = SO₂) was obtained from [3,4-(CH₂:CHCH₂)(HO)C₆H₃]₂SO₂ by successive acetylation, bromination, and cyclocondensation in EtOH containing KOH. Cyclocondensation of I (X = O) with AcOEt or CO₂Et₂ gave bis(2-methyl-6-chromonyl) ether and bis(4-hydroxy-6-coumarinyl) ether; resp. Treatment of (4-NOC₆H₄)₂O with CH₂:CHCN and subsequent hydrolysis, cyclocondensation, and dehydrogenation gave bis(6-chromonyl) ether.

IT 41481-66-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and cyclocondensation reaction of)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



L4 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1973:159124 CAPLUS

DOCUMENT NUMBER: 78:159124

TITLE: Synthesis and study of unsaturated dicarboxylic ether acids

AUTHOR(S): Fedotova, O. Ya.; Korshak, V. V.; Hoang Kim Tung; Dmitrieva, O. N.; Griva, V. A.

CORPORATE SOURCE: USSR

SOURCE: Trudy Instituta - Moskovskii Khimiko-Tekhnologicheskii Institut imeni D. I. Mendeleeva (1972), No. 70, 96-8
 CODEN: TMKIAT; ISSN: 0320-3220

DOCUMENT TYPE: Journal

LANGUAGE: Russian

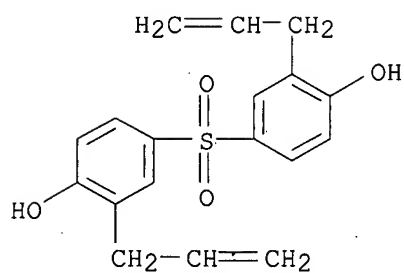
GI For diagram(s), see printed CA Issue.

AB 4,2,5-HO(H₂C:CHCH₂)₂C₆H₂OH (I) reacted with ClCH₂CO₂H to give II. III and IV were prepared analogously. I was prepared by the reaction of 4-HOC₆H₄OH with CH₂:CHCH₂Br, followed by a Claisen rearrangement.

IT 41481-66-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)



L4 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:286132 CAPLUS <<LOGINID::20071005>>
 DOCUMENT NUMBER: 136:309756
 TITLE: Preparation of 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone for color developer for thermal printing materials
 INVENTOR(S): Kameoka, Ikuo; Tsuge, Koki; Nishikawa, Makoto; Takahashi, Toshiaki
 PATENT ASSIGNEE(S): Nikka Chemical Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002114757	A	20020416	JP 2000-311500	20001012
PRIORITY APPLN. INFO.:			JP 2000-311500	20001012

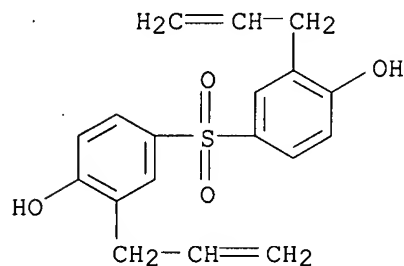
OTHER SOURCE(S): CASREACT 136:309756

AB The compound is prepared by thermal rearrangement of 4,4'-diallyloxydiphenyl sulfone in the presence of 0.5-20 mol equivalent (based on alkalies in 4,4'-diallyloxydiphenyl sulfone) of acid. 4,4'-Diallyloxydiphenyl sulfone was heated with H₂SO₄ in paraffin solvent at 205-210° for 7 h to give a reaction mixture containing 92.4 area% (by HPLC) 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone.

IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (preparation of diallyldihydroxydiphenyl sulfone)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)



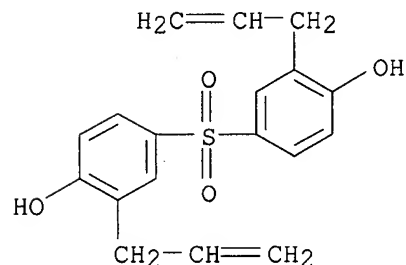
L4 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:77464 CAPLUS <<LOGINID::20071005>>
 DOCUMENT NUMBER: 136:118268
 TITLE: Preparation of 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone as color developer for thermal recording materials
 INVENTOR(S): Tsuge, Yoshiki; Kameoka, Ikuo; Nishikawa, Makoto; Yoshino, Takeshi; Takahashi, Toshiaki
 PATENT ASSIGNEE(S): Nikka Chemical Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002030065	A	20020129	JP 2000-216357	20000717
PRIORITY APPLN. INFO.:			JP 2000-216357	20000717
OTHER SOURCE(S): CASREACT 136:118268				

AB Title compound (I), which is free from impurities causing fog, is prepared by thermal rearrangement of 4,4'-diallyloxydiphenyl sulfone (II) containing ≤50 weight ppm (as NaOH) alkalies. II (alkali content 5 ppm) was heated in Diana Fresia W 8 -kerosene mixture at 205-210° for 7 h, treated with activated C, and recrystd. from dichloroethane to give I with 96.2% purity and indan derivative content 0.3%.

IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
 (preparation of diallyldihydroxydiphenyl sulfone as color developer for thermal recording materials)

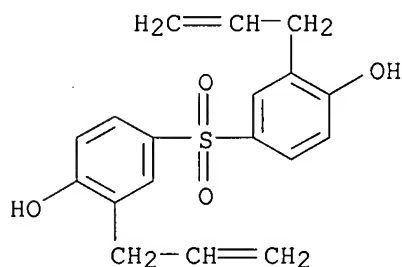
RN 41481-66-7 CAPLUS
 CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



L4 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:77463 CAPLUS <<LOGINID::20071005>>
 DOCUMENT NUMBER: 136:118267
 TITLE: Preparation of 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone as color developer for thermal recording materials
 INVENTOR(S): Kameoka, Ikuo; Tsuge, Yoshiki; Nishikawa, Makoto; Yoshino, Takeshi; Takahashi, Toshiaki
 PATENT ASSIGNEE(S): Nikka Chemical Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002030064	A	20020129	JP 2000-216356	20000717
PRIORITY APPLN. INFO.:			JP 2000-216356	20000717

OTHER SOURCE(S): CASREACT 136:118267
 AB Title compound (I), which is free from impurities causing fog, is prepared by thermal rearrangement of 4,4'-diallyloxydiphenyl sulfone (II) containing ≤50 weight ppm (as NaOH) alkalies in the presence of 0.01-1 weight% amines and/or antioxidants. II (alkali content 5 ppm) was heated in Diana Fresia W 8-kerosene mixture in the presence of N,N-dimethylaniline and hydroquinone monomethyl ether at 205-210° for 7 h, treated with activated C, and recrystd. from dichloroethane to give I with 97.1% purity and indan derivative content 0.2%.
 IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
 (preparation of diallyldihydroxydiphenyl sulfone as color developer for thermal recording materials)
 RN 41481-66-7 CAPLUS
 CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



L4 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:481081 CAPLUS <<LOGINID::20071005>>

DOCUMENT NUMBER: 131:151759

TITLE: Thermal recording materials for images with good oil and plasticizer resistance

INVENTOR(S): Okuda, Masatoshi; Yonese, Naoki

PATENT ASSIGNEE(S): Oji Paper Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 11208122	A	19990803	JP 1998-9425	19980121
PRIORITY APPLN. INFO.:			JP 1998-9425	19980121

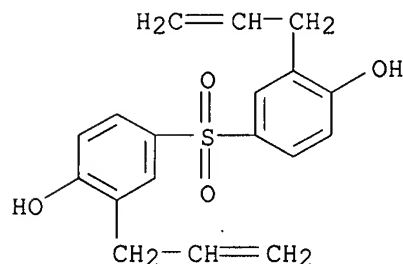
AB The materials comprise supports coated with heat-sensitive recording layers containing leuco dyes, 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone developers, and 4-benzyloxyphenyl-4'-(2-methyl-2,3-epoxypropyloxy)phenyl sulfone storage modifiers. The developers are obtained by Claisen rearrangement of 4,4'-diallyloxydiphenyl sulfone and have content of 3-allyl-4,4'-dihydroxydiphenyl sulfone and 5-(3-allyl-4-hydroxy)diphenyl sulfone-1-oxa-2-methylindan $\leq 0.5\%$. The materials give fog-free images with good oil and plasticizer resistance.

IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(thermal recording materials containing sulfone developers for oil- and plasticizer-resistant images)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



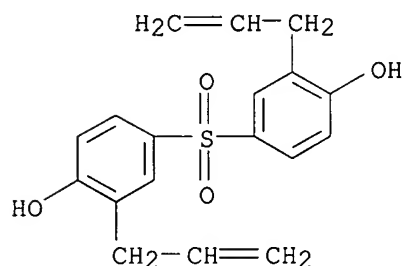
L4 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:481080 CAPLUS <<LOGINID::20071005>>
 DOCUMENT NUMBER: 131:151758
 TITLE: Thermal recording materials for images with good storage stability
 INVENTOR(S): Watanabe, Kazuo; Iwasaki, Nobuyuki
 PATENT ASSIGNEE(S): Oji Paper Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11208121	A	19990803	JP 1998-9424	19980121
PRIORITY APPLN. INFO.:			JP 1998-9424	19980121

AB In the materials having heat-sensitive recording layers, protective layers, and backcoat layers containing re-wetting pastes or adhesives, developers comprise 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone obtained by Claisen rearrangement of 4,4'-diallyloxydiphenyl sulfone and have content of 3-allyl-4,4'-dihydroxydiphenyl sulfone and 5-(3-allyl-4-hydroxy)diphenyl sulfone-1-oxa-2-methylindan $\leq 0.5\%$. The materials give fog-free images with good storage stability and light resistance.

IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (sulfone developers of thermal recording materials for images with good storage stability)

RN 41481-66-7 CAPLUS
 CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



L4 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:463013 CAPLUS <<LOGINID::20071005>>
 DOCUMENT NUMBER: 131:136813
 TITLE: Heat-sensitive recording material containing allyl dihydroxydiphenylsulfone
 INVENTOR(S): Michikawa, Kohei; Okada, Kiyomi
 PATENT ASSIGNEE(S): Oji Paper Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11198545	A	19990727	JP 1998-8754	19980120

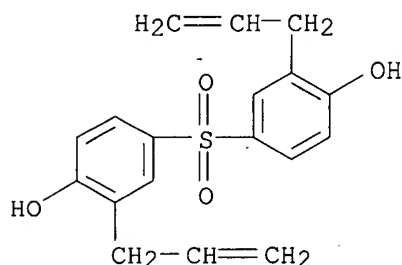
PRIORITY APPLN. INFO.: JP 1998-8754 19980120

AB The material has a transparent support coated with a leuco dye- and coloring agent-containing heat-sensitive recording layer and an optional protective layer, in which the developer (average particle size 0.1-1.0 μ m) comprises 3,3'-diallyl-4,4'-dihydroxydiphenylsulfone, manufactured by Claisen rearrangement of 4,4'-diallyloxydiphenylsulfone, containing $\leq 0.5\%$ 3-allyl-4,4'-dihydroxydiphenylsulfone and 5-(3-allyl-4-hydroxy)diphenylsulfone-1-oxa-2-methylindane. The material gives clear images with storage stability.

IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenylsulfone
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (heat-sensitive recording material containing dihydroxydiphenylsulfone coloring agent)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



L4 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1987:587555 CAPLUS <<LOGINID::20071005>>
 DOCUMENT NUMBER: 107:187555
 TITLE: Bisphenol S derivatives as developers for
 heat-sensitive recording paper
 INVENTOR(S): Ikeda, Fukuji; Takahashi, Toshiaki
 PATENT ASSIGNEE(S): Nikka Chemical Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62053957	A	19870309	JP 1985-191972	19850902
JP 03033153	B	19910516		

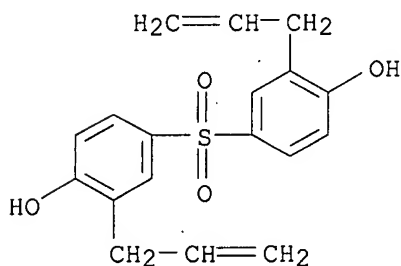
PRIORITY APPLN. INFO.: JP 1985-191972 19850902

AB In manufacturing 3,3'-diallyl-4,4'-dihydroxydiphenylsulfone by the Claisen rearrangement of 4,4'-diallyloxydiphenylsulfone, the reaction is controlled so that the final reaction mixture contains the half-rearranged product, 3-allyl-4-hydroxy-4'-allyloxydiphenylsulfone, 5-20% of the starting material and the completely rearranged product, 3,3'-diallyl-4,4'-dihydroxydiphenylsulfone, ≤90%. The product is recrystd. in a dichloroalkane, aromatic, and alc., glycol, or ether mixed [(10-9):(10-90):(0.1-30) weight%] solvent. The bisphenol S derivs. prepared in the manner give color developers for heat-sensitive recording sheets characterized by low fog.

IT 41481-66-7P
 RL: PREP (Preparation)
 (preparation of, by Claisen rearrangement, as heat-sensitive recording color developer)

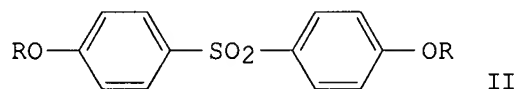
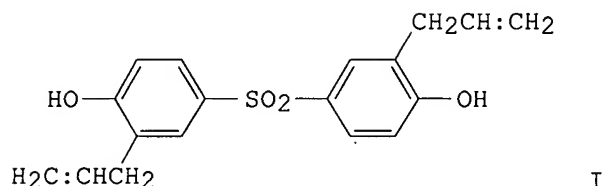
RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



L4 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1986:168122 CAPLUS <<LOGINID::20071005>>
 DOCUMENT NUMBER: 104:168122
 TITLE: Phenol derivatives useful in thermal recording materials
 INVENTOR(S): Shinmoto, Masaki
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd. , Japan
 SOURCE: Ger. Offen., 22 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3504482	A1	19850814	DE 1985-3504482	19850209
DE 3504482	C2	19920312		
JP 60169456	A	19850902	JP 1984-24311	19840214
JP 60208286	A	19851019	JP 1984-63277	19840402
JP 03034475	B	19910522		
GB 2154236	A	19850904	GB 1985-2407	19850131
GB 2154236	B	19870520		
US 4596997	A	19860624	US 1985-696913	19850131
CH 662785	A5	19871030	CH 1985-644	19850212
PRIORITY APPLN. INFO.:			JP 1984-24311	A 19840214
			JP 1984-63277	A 19840402
OTHER SOURCE(S):		CASREACT 104:168122		
GI				

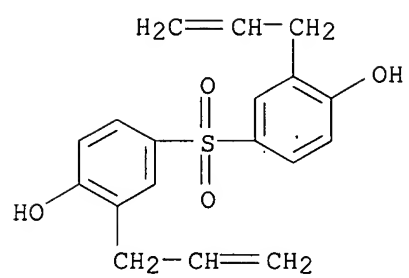


AB Bis(3-allyl-4-hydroxyphenyl)sulfone (I) is prepared by condensation of the sulfone II (R = H, alkali metal) with allyl derivative H2C:CHCH2R1 [R1 = halo, R2SO3; R2 = alkyl, (un)substituted Ph], followed by rearrangement of the reaction product. Thus, a mixture of 4,4'-sulfonyldiphenol, toluene, NaOH and water was treated with H2C:CHCH2Br in the presence of trioctylmethylammonium chloride, to give bis(4-allyloxyphenyl) sulfone, which was heated in trichlorobenzene at 216-219°, to give I. Comps. containing I and a leuco dye are used in thermal recording materials. These comps. scored high in color formation as well as in water-, moisture-, and plasticizer-resistance tests.

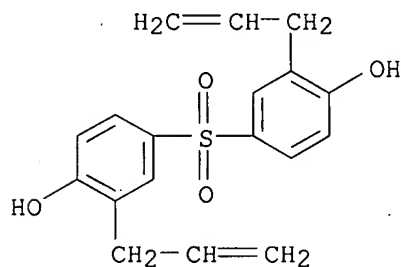
IT 41481-66-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, as thermal recording material)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)



L4 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1973:159124 CAPLUS <<LOGINID::20071005>>
 DOCUMENT NUMBER: 78:159124
 TITLE: Synthesis and study of unsaturated dicarboxylic ether acids
 AUTHOR(S): Fedotova, O. Ya.; Korshak, V. V.; Hoang Kim Tung; Dmitrieva, O. N.; Griva, V. A.
 CORPORATE SOURCE: USSR
 SOURCE: Trudy Instituta - Moskovskii Khimiko-Tekhnologicheskii Institut imeni D. I. Mendeleeva (1972), No. 70, 96-8
 CODEN: TMKIAT; ISSN: 0320-3220
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 GI For diagram(s), see printed CA Issue.
 AB 4,2,5-HO(H₂C:CHCH₂)₂C₆H₂OH (I) reacted with ClCH₂CO₂H to give II. III and IV were prepared analogously. I was prepared by the reaction of 4-HOC₆H₄OH with CH₂:CHCH₂Br, followed by a Claisen rearrangement.
 IT 41481-66-7P
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)
 RN 41481-66-7 CAPLUS
 CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



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NEWS	4	JUL 02	CHEMCATS accession numbers revised
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NEWS	6	JUL 16	CAPplus enhanced with French and German abstracts
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<http://www.cas.org/infopolicy.html>

=> S L2

L3 402 L2

=> S L3 AND ANTIOXIDANT

122734 ANTIOXIDANT

L4 3 L3 AND ANTIOXIDANT

=> S L4 AND ASCORBIC ACID

86730 ASCORBIC

4454891 ACID

85843 ASCORBIC ACID

(ASCORBIC(W)ACID)

L5 1 L4 AND ASCORBIC ACID

=> S L5 AND MICROWAVE

122326 MICROWAVE

L6 1 L5 AND MICROWAVE

=> D L6 IBIB ABS HITSTR 1

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:878367 CAPLUS

DOCUMENT NUMBER: 141:349924

TITLE: Method for producing 3,3'-diallyl-4,4'-
dihydroxydiphenyl sulfone

INVENTOR(S): Yanagida, Shozo; Enokida, Hirotaka; Fujimoto, Masaki;
Nakamura, Katsunori; Yamamoto, Tetsushi; Wada, Yuji

PATENT ASSIGNEE(S): Sanko Chemical Industry Co., Ltd., Japan

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004089883	A1	20041021	WO 2004-JP4719	20040331
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,			

GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK,
 LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO,
 NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
 TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
 BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
 ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
 SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
 TD, TG

JP 2004345955 A 20041209 JP 2003-100352 20030403
 JP 2005075757 A 20050324 JP 2003-306348 20030829
 EP 1612205 A1 20060104 EP 2004-724844 20040331

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK

CN 1768032 A 20060503 CN 2004-80009129 20040331
 US 2006217574 A1 20060928 US 2005-551481 20050929

PRIORITY APPLN. INFO.:

JP 2003-100352 A 20030403
 JP 2003-306348 A 20030829
 WO 2004-JP4719 W 20040331

OTHER SOURCE(S): CASREACT 141:349924

AB Disclosed is a method for producing 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone (I), which comprises subjecting 4,4'-diallyloxydiphenyl sulfone (II) to Claisen rearrangement reaction under the irradiation with a microwave, preferably in a molten state, more preferably further in a substantially oxygen-free atmospheric and in the presence of at least one compound selected from the group consisting of an antioxidant, an organic base compound and a chelate compound. The method allows the production of the

objective compound having a high purity with good efficiency in a short time in good yield without using solvent. Thus, 10.00 g II and 0.01 g N,N-dimethylaniline were added to a quartz flask fitted with a temperature sensor and a magnetic stirrer, purged with N, and irradiated with microwave (2,450 MHz and 100 W) under a stream of N. After melting at 160°, the temperature was maintained at 280° for 5 min by turning on and off the irradiation. The reaction mixture was dissolved in 10 weight% aqueous NaOH solution, decolorized by stirring with a small quantity of activated charcoal, filtered, neutralized with HCl for precipitating crystals

to

give 80-90% I.

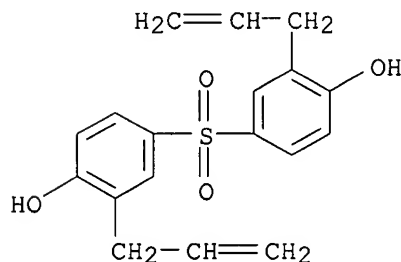
IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone by Claisen rearrangement of 4,4'-diallyloxydiphenyl sulfone under microwave irradiation in presence of antioxidant, organic base compound, or chelate compound)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)



REFERENCE COUNT:

5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D L5 IBIB ABS HITSTR 1

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:878367 CAPLUS
DOCUMENT NUMBER: 141:349924
TITLE: Method for producing 3,3'-diallyl-4,4'-
dihydroxydiphenyl sulfone
INVENTOR(S): Yanagida, Shozo; Enokida, Hirotaka; Fujimoto, Masaki;
Nakamura, Katsunori; Yamamoto, Tetsushi; Wada, Yuji
PATENT ASSIGNEE(S): Sanko Chemical Industry Co., Ltd.; Japan
SOURCE: PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004089883	A1	20041021	WO 2004-JP4719	20040331
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
JP 2004345955	A	20041209	JP 2003-100352	20030403
JP 2005075757	A	20050324	JP 2003-306348	20030829
EP 1612205	A1	20060104	EP 2004-724844	20040331
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK			
CN 1768032	A	20060503	CN 2004-80009129	20040331
US 2006217574	A1	20060928	US 2005-551481	20050929
PRIORITY APPLN. INFO.:			JP 2003-100352	A 20030403
			JP 2003-306348	A 20030829
			WO 2004-JP4719	W 20040331

OTHER SOURCE(S): CASREACT 141:349924

AB Disclosed is a method for producing 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone (I), which comprises subjecting 4,4'-diallyloxydiphenyl sulfone (II) to Claisen rearrangement reaction under the irradiation with a microwave, preferably in a molten state, more preferably further in a substantially oxygen-free atmospheric and in the presence of at least one compound selected from

the group consisting of an antioxidant, an organic base compound and a chelate compound. The method allows the production of the objective compound having a high purity with good efficiency in a short time in good yield without using solvent. Thus, 10.00 g II and 0.01 g N,N-dimethylaniline were added to a quartz flask fitted with a temperature sensor and a magnetic stirrer, purged with N₂, and irradiated with microwave (2,450 MHz and 100 W) under a stream of N₂. After melting at 160°, the temperature was maintained at 280° for 5 min by turning on and off the irradiation. The reaction mixture was dissolved in 10 weight% aqueous NaOH solution, decolorized by

stirring with a small quantity of activated charcoal, filtered, neutralized with HCl for precipitating crystals to give 80-90% I.

IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone

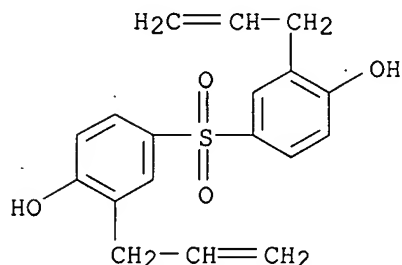
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone by Claisen rearrangement of 4,4'-diallyloxydiphenyl sulfone under microwave

irradiation in presence of antioxidant, organic base compound, or
chelate compound)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D L4 IBIB ABS HITSTR 1-3

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:878367 CAPLUS

DOCUMENT NUMBER: 141:349924

TITLE: Method for producing 3,3'-diallyl-4,4'-
dihydroxydiphenyl sulfone

INVENTOR(S): Yanagida, Shozo; Enokida, Hirotaka; Fujimoto, Masaki;
Nakamura, Katsunori; Yamamoto, Tetsushi; Wada, Yuji

PATENT ASSIGNEE(S): Sanko Chemical Industry Co., Ltd., Japan

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004089883	A1	20041021	WO 2004-JP4719	20040331
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
JP 2004345955	A	20041209	JP 2003-100352	20030403
JP 2005075757	A	20050324	JP 2003-306348	20030829
EP 1612205	A1	20060104	EP 2004-724844	20040331
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK			
CN 1768032	A	20060503	CN 2004-80009129	20040331
US 2006217574	A1	20060928	US 2005-551481	20050929
PRIORITY APPLN. INFO.:			JP 2003-100352	A 20030403
			JP 2003-306348	A 20030829
			WO 2004-JP4719	W 20040331

OTHER SOURCE(S): CASREACT 141:349924

AB Disclosed is a method for producing 3,3'-diallyl-4,4'-dihydroxydiphenyl

sulfone (I), which comprises subjecting 4,4'-diallyloxydiphenyl sulfone (II) to Claisen rearrangement reaction under the irradiation with a microwave, preferably in a molten state, more preferably further in a substantially oxygen-free atmospheric and in the presence of at least one compound selected

from

the group consisting of an antioxidant, an organic base compound and a chelate compound. The method allows the production of the objective compound having a high purity with good efficiency in a short time in good yield without using solvent. Thus, 10.00 g II and 0.01 g N,N-dimethylaniline were added to a quartz flask fitted with a temperature sensor and a magnetic stirrer, purged with N₂ and irradiated with microwave (2,450 MHz and 100 W) under a stream of N₂. After melting at 160°, the temperature was maintained at 280° for 5 min by turning on and off the irradiation. The reaction mixture was dissolved in 10 weight% aqueous NaOH solution,

decolorized by

stirring with a small quantity of activated charcoal, filtered, neutralized with HCl for precipitating crystals to give 80-90% I.

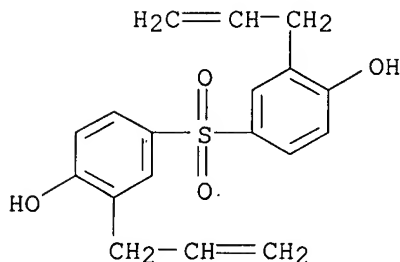
IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone by Claisen rearrangement of 4,4'-diallyloxydiphenyl sulfone under microwave irradiation in presence of antioxidant, organic base compound, or chelate compound)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:77463 CAPLUS

DOCUMENT NUMBER: 136:118267

TITLE: Preparation of 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone as color developer for thermal recording materials

INVENTOR(S): Kameoka, Ikuo; Tsuge, Yoshiki; Nishikawa, Makoto; Yoshino, Takeshi; Takahashi, Toshiaki

PATENT ASSIGNEE(S): Nikka Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002030064	A	20020129	JP 2000-216356	20000717
PRIORITY APPLN. INFO.:			JP 2000-216356	20000717

OTHER SOURCE(S): CASREACT 136:118267

AB Title compound (I), which is free from impurities causing fog, is prepared by thermal rearrangement of 4,4'-diallyloxydiphenyl sulfone (II) containing

≤50 weight ppm (as NaOH) alkalies in the presence of 0.01-1 weight% amines and/or antioxidants. II (alkali content 5 ppm) was heated in Diana Fresia W 8-kerosene mixture in the presence of N,N-dimethylaniline and hydroquinone monomethyl ether at 205-210° for 7 h, treated with activated C, and recrystd. from dichloroethane to give I with 97.1% purity and indan derivative content 0.2%.

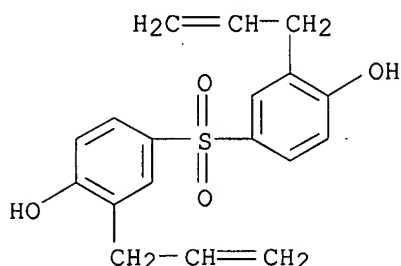
IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(preparation of diallyldihydroxydiphenyl sulfone as color developer for thermal recording materials)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)



L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1988:430201 CAPLUS

DOCUMENT NUMBER: 109:30201

TITLE: Thermographic copying paper containing fluoran and hydroxydiphenyl sulfone for fading-resistant images

INVENTOR(S): Katsuta, Shinichiro; Toyoda, Tadashi; Unno, Tomoyuki

PATENT ASSIGNEE(S): Kohjin Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

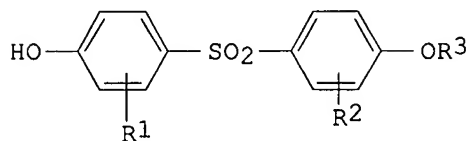
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62225391	A	19871003	JP 1986-67312	19860327
PRIORITY APPLN. INFO.:			JP 1986-67312	19860327

GI



I

AB The thermosensitive layer of a thermog. copying paper contains 3-diethylamino-6-methyl-7-anilino-fluoran and/or 3-pyrrolidino-6-methyl-7-anilino-fluoran as a colorless or pale color former, a hydroxydiphenyl sulfone derivative I (R1-3 = H, C≤5 alkyl, or C≤5 alkenyl) as a developer, and a heat-melting material. The paper gives images having excellent color d. and fading of the images is prevented. Thus, a paper was coated with a mixture of an aqueous solution containing 3-diethylamino-6-methyl-7-

anilinofluoran, an aqueous solution containing I (R1-3 = H), stearamide, and Zn stearate, polyvinyl alc., and a dispersion containing clay and CaCO3 and dried to obtain a thermal copying paper which gave vinyl chloride-resistant images.

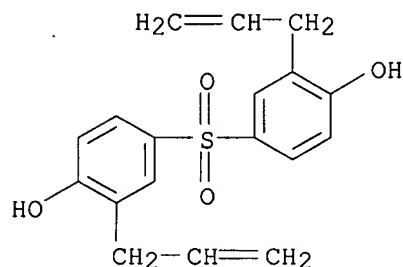
IT 41481-66-7

RL: USES (Uses)

(thermog. copying paper containing leuco dye and, for fading-resistant images)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)



=> S L3 AND ANTIOXIDANT

122734 ANTIOXIDANT

L7 3 L3 AND ANTIOXIDANT

=> S L3 AND ASCORBIC ACID

86730 ASCORBIC

4454891 ACID

85843 ASCORBIC ACID

(ASCORBIC(W)ACID)

L8 2 L3 AND ASCORBIC ACID

=> D L8 IBIB ABS HITSTR 1-2

L8 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:878367 CAPLUS

DOCUMENT NUMBER: 141:349924

TITLE: Method for producing 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone

INVENTOR(S): Yanagida, Shozo; Enokida, Hirotaka; Fujimoto, Masaki; Nakamura, Katsunori; Yamamoto, Tetsushi; Wada, Yuji

PATENT ASSIGNEE(S): Sanko Chemical Industry Co., Ltd., Japan

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004089883	A1	20041021	WO 2004-JP4719	20040331
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,			

ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
TD, TG

JP 2004345955	A	20041209	JP 2003-100352	20030403
JP 2005075757	A	20050324	JP 2003-306348	20030829
EP 1612205	A1	20060104	EP 2004-724844	20040331

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK

CN 1768032	A	20060503	CN 2004-80009129	20040331
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US 2006217574	A1	20060928	US 2005-551481	20050929
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PRIORITY APPLN. INFO.:

JP 2003-100352	A	20030403
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JP 2003-306348	A	20030829
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WO 2004-JP4719	W	20040331
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OTHER SOURCE(S): CASREACT 141:349924

AB Disclosed is a method for producing 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone (I), which comprises subjecting 4,4'-diallyloxydiphenyl sulfone (II) to Claisen rearrangement reaction under the irradiation with a microwave, preferably in a molten state, more preferably further in a substantially oxygen-free atmospheric and in the presence of at least one compound selected from

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purity with good efficiency in a short time in good yield without using solvent. Thus, 10.00 g II and 0.01 g N,N-dimethylaniline were added to a quartz flask fitted with a temperature sensor and a magnetic stirrer, purged with N₂ and irradiated with microwave (2,450 MHz and 100 W) under a stream of N₂. After melting at 160°, the temperature was maintained at 280° for 5 min by turning on and off the irradiation The reaction mixture was dissolved in 10 weight% aqueous NaOH solution, decolorized by

stirring with a small quantity of activated charcoal, filtered, neutralized with HCl for precipitating crystals to give 80-90% I.

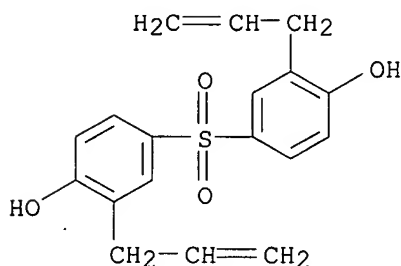
IT 41481-66-7P, 3,3'-Diallyl-4,4'-dihydroxydiphenyl sulfone

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of 3,3'-diallyl-4,4'-dihydroxydiphenyl sulfone by Claisen rearrangement of 4,4'-diallyloxydiphenyl sulfone under microwave irradiation in presence of antioxidant, organic base compound, or chelate compound)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)



REFERENCE COUNT:

5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1990:468446 CAPLUS

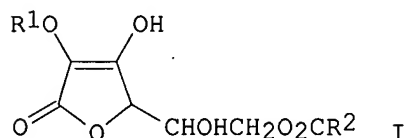
DOCUMENT NUMBER: 113:68446

TITLE: Thermally-responsive record material containing ascorbic acid ester for improved fade resistance

INVENTOR(S): Glanz, Kenneth D.; Bartman, Gerald C.

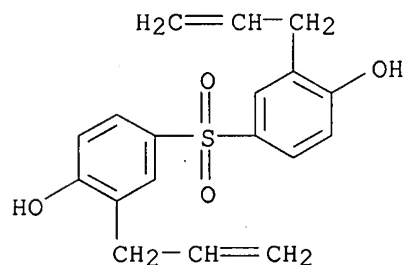
PATENT ASSIGNEE(S): Appleton Papers, Inc., USA
 SOURCE: U.S., 15 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4870047	A	19890926	US 1988-239493	19880901
CA 1309865	A1	19921110	CA 1988-579988	19881013
PRIORITY APPLN. INFO.:			US 1988-239493	A 19880901
OTHER SOURCE(S):	MARPAT 113:68446			
GI				



AB Thermally responsive recording materials which are resistant to image fade from contact with common fats or oils, skin oil, carbonless solvents, plasticizers, or high heat and humidity are composed of a heat-sensitive color-forming composition comprising a chromogenic material and an acidic developer in proximate relation, whereby the melting, softening, or sublimation of either material produces a change in color by reaction between the 2, and an ascorbic acid ester (I; R1 = H or a straight chain or branched chain acyl group of from 9-22 C; R2 = a straight chain or branched chain acyl group of from 8-21 C) as a fading inhibitor.

IT 41481-66-7, Bis(3-allyl-4-hydroxyphenylsulfone)
 RL: USES (Uses)
 (thermal recording materials containing ascorbic acid ester and, for improved resistance to fadding by oils and plasticizers and solvents)
 RN 41481-66-7 CAPLUS
 CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]



=> S L3 AND CHELATE AGENT
 46236 CHELATE
 865949 AGENT
 123 CHELATE AGENT
 (CHELATE (W) AGENT)
 L9 0 L3 AND CHELATE AGENT

=> S L3 AND CHELATING AGENT

54393 CHELATING

865949 AGENT

15328 CHELATING AGENT

(CHELATING(W) AGENT)

L10

0 L3 AND CHELATING AGENT

L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1988:430201 CAPLUS

DOCUMENT NUMBER: 109:30201

TITLE: Thermographic copying paper containing fluoran and hydroxydiphenyl sulfone for fading-resistant images

INVENTOR(S): Katsuta, Shinichiro; Toyoda, Tadashi; Unno, Tomoyuki

PATENT ASSIGNEE(S): Kohjin Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

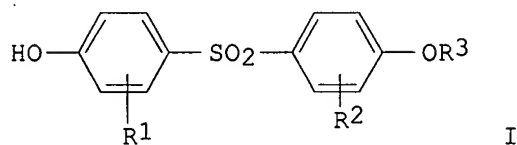
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 62225391	A	19871003	JP 1986-67312	19860327
PRIORITY APPLN. INFO.:			JP 1986-67312	19860327

GI



AB The thermosensitive layer of a thermog. copying paper contains 3-diethylamino-6-methyl-7-anilino-fluoran and/or 3-pyrrolidino-6-methyl-7-anilino-fluoran as a colorless or pale color former, a hydroxydiphenyl sulfone derivative I (R1-3 = H, C \leq 5 alkyl, or C \leq 5 alkenyl) as a developer, and a heat-melting material. The paper gives images having excellent color d. and fading of the images is prevented. Thus, a paper was coated with a mixture of an aqueous solution containing

3-diethylamino-6-methyl-7-anilino-fluoran, an aqueous solution containing I (R1-3 = H), stearamide, and Zn stearate, polyvinyl alc., and a dispersion containing clay and CaCO₃ and dried to obtain a thermal copying paper which gave vinyl chloride-resistant images.

IT 41481-66-7

RL: USES (Uses)

(thermog. copying paper containing leuco dye and, for fading-resistant images)

RN 41481-66-7 CAPLUS

CN Phenol, 4,4'-sulfonylbis[2-(2-propen-1-yl)- (CA INDEX NAME)]

